

REMARKS

Summary

Please find copies of the five foreign patent documents requested in the previous Office Action. Please consider these references and sign the attached IDS (PTO 1449). Claims 1-4, and 8-37 are presently pending with Claims 1, 2, 8, 11, and 33 being currently amended, Claims 3-4, 9-10, 13, and 32 previously presented, Claims 5-7 and 13 cancelled, Claim 12 original, Claims 14-31 withdrawn from consideration, and Claims 34-37 new.

Claim 1 has been amended to clarify that the percentages refer to the percent by weight of each ingredient of the compound. Claim 1 has been amended to incorporate some of the subject matter of Claim 13 (now cancelled). Similarly Claims 36 and 37 also claim part of the subject matter of Claim 13.

Claims 1, 36, and 37 are patentable over Desobry 6,251,962, because Desobry does not disclose the five ingredient compound of Claim 1, Claim 36, or Claim 37. More specifically, Desobry does not disclose a transparent, polymerisable compound having Irganox 1010, Tinuvin 400, or BYK UV 3500.

Claims 1, 36, and 37 are patentable over Flosbach 6,332,291 in view of Inoue 6,255,392 in view of Huybrechts 5,977,256 because, as explained in detail below, one having ordinary skill in the art would have appreciated the substantial unpredictability involved in creating vehicle compounds, and would never have suspected that Irganox 1010, Tinuvin 400, or BYK 3500 would work with Flosbach's compound based upon Huybrechts' teachings.

Claim 1

Claim 1 as amended is patentable over Flosbach 6,332,291 in view of Inoue 6,255,392 in view of Huybrechts 5,977,256. The claimed compound of Claim 1 has five ingredients: hydroxylated acrylic resins, monomers, solvents, photoinitiators, and Irganox 1010. The Examiner alleges that Flosbach discloses a radiation curable compound useful for a vehicle lacquer coating having the first four ingredients but not the antioxidant, Irganox 1010. The Examiner located a reference (Huybrechts) which disclosed adding this same antioxidant to a different vehicle compound, and concluded that it would have been obvious to add the

antioxidant from Huybrechts to the Flosbach compound in order to prevent discoloration and changes to the mechanical properties of the compound. The trouble with this conclusion is that recognizing that one could add Irganox 1010 to the Flosbach compound based on reading Huybrechts' patent, exceeds the abilities of one having ordinary skill in the art, because the combination of chemical ingredients into a final formulation is an unpredictable art, as each ingredient will have both a positive and negative interaction with each of the other ingredients.

The composition of Flosbach's compound is drastically different than that of Huybrechts.¹ The Examiner asserts that one having read the Huybrechts patent would be motivated to add an antioxidant to the Flosbach composition. Even if that were true, one would not know which antioxidant to select nor would one know the correct conditions in which the antioxidant could be added. Antioxidants, molecules capable of slowing or preventing the oxidation of other molecules, are vastly different from one another, and there are hundreds of potential antioxidants to choose from. Irganox alone is commercially sold in several compounds 1010, 1076, 1035, b225, 168, and b900. Furthermore, adding an antioxidant to Flosbach's formulation would require the evaluation of a number of "parameters" in the final compound such as appearance, longevity, effectiveness, reliability, and shelf life. Further still, one would also have to evaluate under what "conditions" Irganox 1010 could be added by considering and experimenting with factors such as temperature, mixing mechanism, concentration, and other chemical parameters (solvent, pH, etc). Huybrechts does not disclose one could add Irganox 1010 to the Flosbach compound, and without this teaching, one having ordinary skill in the art would not know which antioxidant could be used with the Flosbach compound, nor would he or she know under what conditions Irganox 1010 could be added. There are many parameters to consider when creating a useful vehicle coating, and absent extensive experimentation with numerous antioxidants under a plethora of varying conditions, one having ordinary skill in the art would have never realized that Irganox 1010 could be successfully combined with the Flosbach

¹ According to the Examiner, Flosbach discloses a compound having hydroxylated (meth) acryloyl-functional urethane, monomers, methyl ethyl ketone, and a photoinitiator. Huybrechts' clear coat composition comprises: an acrylic polyol, a polyester polyol, and a crosslinking agent (such as alkoxylated melamine formaldehyde adduct or a polyisocyanate).

compound. Rather, one having ordinary skill in the art would have appreciated the substantial unpredictability involved in creating vehicle compounds, and would never have suspected that Irganox 1010 would work with Flosbach's compound based upon Huybrechts' teachings. For at least these reasons, the claimed invention is patentable over Flosbach in view of Huybrechts.

Claims 36 & 37

Claim 36 is similar to Claim 1, except that it substitutes Tinuvin 400 for Irganox 1010 as the fifth ingredient. For many of the same reasons explored in Claim 1, the disclosure of Huybrechts does not make adding Tinuvin 400 to the Flosbach compound obvious. First, Huybrechts does not disclose or advocate the use of Tinuvin 400. Though he does disclose using Tinuvin 1130 and 292 in a clearcoat formation, Huybrechts does not disclose using Tinuvin 400. There are many commercial forms of Tinuvin, such as Tinuvin 292, 328, 1130, 770, 783, 622, 400, 765, 928, and 144. Huybrechts does not disclose that the compound of Flosbach would work in the event any form of Tinuvin were to be added (let alone Tinuvin 400 in particular.) Extensive experimentation of the proper "parameters" and "conditions" would need to be evaluated and determined before any form of Tinuvin could successfully be added to the Flosbach compound. Because of the many parameters to consider when creating a useful vehicle coating, and absent extensive experimentation with numerous antioxidants under a plethora of varying conditions, one having ordinary skill in the art would have never realized that Tinuvin 400 could be successfully combined with the Flosbach compound. Rather, one having ordinary skill in the art would have appreciated the substantial unpredictability involved in creating vehicle compounds, and would never have suspected that Tinuvin 400 would work with Flosbach's compound based upon Huybrechts' teachings.

Claim 37 is similar to Claim 1, except that it substitutes BYK UV 3500 for Irganox 1010 as the fifth ingredient. For many of the same reasons explored in Claim 1, the disclosure of Huybrechts does not make adding BYK 3500 to the Flosbach's compound obvious. First, Huybrechts does not disclose or advocate the use of BYK UV 3500. There are many, many additives that BYK makes such as BYK 160, 190, 183, 2163, 20, 346, 306, 301, 348, 310, 331, 320, 300, 361 (just to name a few.) Huybrechts does not disclose that the compound of Flosbach would work if any additive made by BYK, and certainly does not disclose that BYK

3500 can be added in particular. Extensive experimentation of the proper “parameters” and “conditions” would need to be evaluated and determined before BYK 3500 could be added to the Flosbach compound. Because of the many parameters to consider when creating a useful vehicle coating, and absent extensive experimentation with numerous antioxidants under a plethora of varying conditions, one having ordinary skill in the art would have never realized that BYK 3500 could be successfully combined with the Flosbach compound. Rather, one having ordinary skill in the art would have appreciated the substantial unpredictability involved in creating vehicle compounds, and would never have suspected that BYK 3500 would work with Flosbach’s compound based upon Huybrechts’ teachings.

Conclusion

In view of the foregoing, the Applicants respectfully request that the Examiner consider the claims as amended for examination on the merits. A timely allowance of the pending claims is requested. If there are any fees (such as necessary extension of time or extra claims fees) due in connection with the filing of this Response and Amendment which are not covered by the concurrently submitted transmittal document, please charge any necessary fees or credit any overpayments to Deposit Account No. 50-1349. The Examiner is invited to contact Applicants’ undersigned attorneys and agents by telephone to discuss any matters if the Examiner feels such discussions may expedite the progress of the present application toward allowance.

Respectfully submitted,

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